all, of these birds leave the area during the first half of September, presumably moving further south. Additional arrivals occur in the October–November period, with continuing presence on the plains through to February and March. Counts of the birds wintering on this 30 km² area can reach 400.

These fluctuations compare exactly with the data of Nikolaus (1987) from Sudan, where there is a distinct August passage along the Nile, prior to the arrival of wintering birds in October.

The August and October arrivals presumably represent two, separately migrating populations. Since this plover leaves its breeding grounds in August, these first arrivals in Africa would seem to have made a direct, unbroken flight (Cramp & Simmons 1983). August arrivals are known from Sudan, Ethiopia and Somalia, south to Zambia and southern Africa (Nikolaus 1987, Urban et al. 1986).

The Caspian Plovers that arrive in Africa during September and October have either left their breeding grounds later than the early August migrants (birds breeding at more southerly latitudes might depart later than those from further north); or have broken their flight in the Middle East. Cramp & Simmons (1983) mention large mid August–October flocks in Iraq.

References

Britton, P.L. (ED.). 1980. Birds of East Africa. Nairobi: EANHS.

CRAMP, S. & SIMMONS, K.E.L. 1983. The birds of the western Palearctic. Oxford: OUP. NIKOLAUS, G. 1987. Distribution atlas of Sudan's birds with notes on habitat and status. Bonner zoologische Monographien 25: 1–322.

Urban, E.K., Fry, C.H. & Keith, S. 1986. *The birds of Africa*, Vol II. London: Academic Press.

Adrian D. Lewis, Box 25296, Nairobi, Kenya

Scopus 12: 101-102, March 1989

Received 8 March 1989

Two commensal feeding associations observed in Kenya Hamerkop Scopus umbretta and African Buffalo Syncerus caffer

On 16 November 1987, while driving around the swamps of Amboseli National Park (2°30S, 37°00E), I came upon an African Buffalo wallowing in a mud hole. A Hamerkop was deliberately stalking around the buffalo, catching jumping or flying prey items that the rolling buffalo disturbed. The buffalo paid no attention whatsoever to the bird, even when the latter was only 10–20 cm from its muzzle.

On 24 September 1988, I watched a buffalo crossing Musiara marsh, in the north of the Maasai Mara Game Reserve (1°17S, 35°03E). As it came towards me through the marsh vegetation, a Hamerkop persistently fluttered around it, often immediately around its head, taking food items flushed up by the beast's progress. Again, the mammal paid no attention to the bird.

Standard reference works make no mention of this association, while Dean & MacDonald (1961), in their review of such phenomena, quote one example, of a

Hamerkop catching insects disturbed by grazing cattle in Zimbabwe.

Marsh Sandpiper Tringa stagnatilis and Avocet Recurvirostra avosetta

On 8 February 1988, on lagoons at Lake Magadi (1°52S, 36°17E), David Fisher and I watched a Marsh Sandpiper persistently feed in the wake of a feeding immature Avocet. The Avocet's slow, meandering progress left a track of dark suspended sediment in the shallow water, and the sandpiper followed this trail at distances of less than one metre from the Avocet, presumably taking food items disturbed by the other bird's progress. In addition to material disturbed by its feet, the Avocet's characteristic side-to-side bill motion through the bottom sediment would cause more disturbance than the passage of other shorebirds, and thus make it a more profitable species to follow.

Cramp & Simmons (1983) mention that Marsh Sandpipers in their winter range are noted for taking food items disturbed by the activities of other bids, particularly ducks, egrets and other shorebirds. Reynolds (1972) reported such an association from Nairobi, where a Marsh Sandpiper fed in the wake of a pair of dabbling Hottentot Teal Anas hottentota.

Acknowledgements

I am very grateful to John Fanshawe for notification of the Ostrich reference.

References

CRAMP, S. & SIMMONS, K.E.L. 1983. The birds of the western Palearctic. Oxford: OUP.

DEAN, W.R.J. & MacDonald, I.A.W. 1981. A review of African birds feeding in association with mammals. *Ostrich* 52: 135–155.

REYNOLDS, J.F. 1972. Feeding association between Marsh Sandpiper and Hottentot Teal. *EANHS Bulletin* 1972: 189.

Adrian D. Lewis, Box 25296, Nairobi, Kenya

Scopus 12: 102-103, March 1989

Received 2 March 1989

REVIEWS

The birds of Ghana by L.G. Grimes, 1987. London: BOU Check-list No. 9. Size 156 x 252 mm, softback, pp. 276, plus 16 halftone plates of habitats and several line maps. ISBN 0 907446 08 6. Price £16 in UK (£18 overseas) from the British Ornithologists' Union, c/o British Museum (Natural History), sub-department of Ornithology, Tring, Herts HP23 6AP, England.

This excellent book stretches the meaning of the word 'check-list', but this is all to the good. The extremely thorough preliminary matter of some 50 pages covers the usual aspects pertinent to the birds of a country—climate, vegetation zones, geology and topography—as well as the political history, ornithological history, the future of ornithology of the country and a comparison of the avifaunas of Ghana and Nigeria (a check-list of Nigerian birds, by J.H. Elgood, was the fourth in this BOU series, published in 1982). In addition, there are sections on biological seasons in forest and savanna, breeding and migration The halftone plates of habitats are excellent.

The bulk of the book is the Systematic List. The scientific nomenclature follows C.M.N.